RAINFALL IN JAMAICA.

The northern division comprises the northern shores from Port Maria to Davis Cove, including the central part of the Island which forms the central subdivision; the southern division comprises the southern shores from Holland Bay to South Negril; the northeastern and west-central divisions are the remaining parts of the Island bounded by the sea and the other divisions.

Through the kindness of Mr. Maxwell Hall, meteorologist to the government of Jamaica and now in charge of the meteorological service of that island, we have received the following data:

Comparative table of rainfall for February, 1910.
[Based upon the average stations only.]

Divisions.	Relative. area.	Number of stations.	Rainfall	
			1910.	Average.
			Inches.	*Inches.*
Northeastern division	25	17	4.66	5.39
Northern division	23	41	2.40	2.54
West-central division	26	20	1.34	2.78
Southern division	27	26	0.40	1.73
Means	100		2.20	3.11

The rainfall for the island was an inch below the average.

The heaviest rainfall, 17.48 inches, was recorded at Shrewbury, in the northeastern division, while at several places in the southern division no rain fell during February.

RIVERS AND FLOODS.

By Prof. H. C. FRANKENFIELD, in charge River and Flood Division.

At the close of the month of January, 1910, the entire northern section of the country east of the Mississippi River was under a blanket of snow that ranged in depth from 3 to 39 inches, with the maximum depth over Michigan, northwestern Pennsylvania, and northeastern New York. Beneath the greater portion of this snow was a frozen soil, and the flood outlook for the month of February was far from reassuring. A single heavy rainfall accompanied by high temperatures, such as frequently occur toward the end of winter, could not fail to cause severe floods over all the northern districts east of the Mississippi River. Fortunately the month was a moderately cold one and there was practically no change in the conditions during the first three weeks of February, except that the snow had increased somewhat in depth and compactness over the northern districts, with a water equivalent of about 4 inches over the watershed of the Grand River of Michigan, and from 3 to 5 inches over that of the upper Allegheny River. Beginning with February 26 a period of warm weather set in without any rains of consequence, except over the lower Ohio Valley, and by the end of the month much of the snow had disappeared from the Allegheny Valley eastward and northeastward. On Sunday February 27, the following statement was issued from the Central Office at Washington:

Weather conditions during the present week will be such as to cause a decided rise in the Ohio River and its tributaries, and also in rivers that have their sources in the mountain districts of the North Atlantic States. These regions are covered by an unusual depth of snow, the melting of which by high temperatures that will prevail throughout the week, supplemented by rains of the first part and the closing days of the week, will cause freshets in the smaller streams and produce in the rivers rises that are likely to approach or pass flood stages.

Owing to the absence of heavy rains, the run-off was comparatively slow over the Allegheny watershed, with stages on February 28 a few feet above the flood stage as a rule. At the end of the month the crest of the rise had not yet reached Pittsburg.

Specific warnings for the interior rivers of the State of Ohio, the upper Ohio River, and the rivers of the Middle Atlantic States and southern New England were issued on February 28, but as the floods did not occur until after that date, mention thereof will be deferred until the next issue of the REVIEW. Over the lower Ohio watershed the rains of February 27 and 28 were quite heavy, and on the latter date warnings of flood stages were also issued for the Ohio River at Evansville, Ind., and for the lower Wabash River.

Except where frozen, the upper Mississippi River fell somewhat during the month, while the lower river fell until about February 20, when another rise set in from the Ohio River. This rise was due to moderately heavy rains over the lower Ohio watershed about the middle of the month, and at the end of the month it had not quite reached New Orleans. These rains also caused decided rises in the Cumberland and lower Tennessee rivers, but not to flood stages. The Illinois River, below La Salle, Ill., remained somewhat above flood stage, although there was a gradual fall throughout the month. The rivers of Texas were comparatively low, but elsewhere in the Gulf of Mexico system moderate stages prevailed with a single sharp rise in the Wateree and Congaree rivers of South Carolina and the rivers of Georgia and Alabama, caused by heavy rains during the early part of the last week of the month. Warnings were necessary for the Congaree and Wateree rivers and, as a result, a large number of cattle was removed from the swamps, as well as some hay from the meadow lands. No damage was done, and to the lumbermen the high water was of decided benefit. Over the north Pacific States general rains were frequent and, together with the melted snow waters resulting from the warm winds, they caused a renewal of flood conditions over portions of the State of Washington during the last week of the month. Warnings of the approach of the high water were issued on February 26. There was also a rapid rise in the upper Sacramento River and in some of the smaller rivers in the State of Oregon. No detailed reports of these high waters have yet been received.

ICE.

There was but little change in ice conditions during the month. The Mississippi River remained frozen as far down as the mouth of the Des Moines River, and the Missouri as far south as the mouth of the Platte River. There was a gorge above the bridge at St. Joseph, Mo., until February 14 when the ice moved out.

On the morning of February 28 the gorges at Towanda, Pa., on the North Branch, and at Clearfield, Pa., on the West Branch of the Susquehanna River, broke and by night all the ice in the rivers was moving. At Renovo, Pa., on the West Branch a stage of about 25 feet, or 9 feet above flood stage, resulted from the movement. The upper Passaic River remained frozen during the month, while the ice in the White River, at Whiteriver Junction, Vt., moved out into the Connecticut at 1 p. m., February 28.

Hydrographs for typical points on several principal rivers are shown on Chart I. The stations selected for charting are Keokuk, St. Louis, Memphis, Vicksburg, and New Orleans, on the Mississippi; Cincinnati and Cairo, on the Ohio; Nashville, on the Cumberland; Johnsonville, on the Tennessee; Kansas City, on the Missouri; Little Rock, on the Arkansas; and Shreveport, on the Red.